

REMARKSI. Introduction

In response to the Office Action dated April 8, 2004, please consider the following remarks. Re-examination and re-consideration of the application, as amended, is requested.

II. The Cited References and the Subject Invention

A. The Chang Reference

U.S. Patent No. 5,974,449, issued October 26, 1999 to Chang et al. discloses an apparatus and method for receiving a message having a first format and for converting the message from the first format to a second format that is compatible for reception by a messaging interface having a destination address corresponding to an intended recipient. In the preferred embodiment, a computer system is used to receive and send messages between messaging interfaces and networks which may be dissimilar from each other. A variety of network interfaces is used to communicate with the networks and which may optionally have a first interface and a second interface for interfacing to a first and second network, respectively. The messages may optionally be presented through a web page. A forwarding program or equivalent may be used to forward subscriber messages to or from remote locations served by a remote computer system, enabling a messaging user to use the remote computer system as a local access point. A browser interface may be optionally used to control messages presented by the computer system on a real-time basis using hyperlink commands. The computer system may also be used in conjunction with: a recipient notification program or equivalent device that determines when a recipient is logged on to a network and if so, provides any messages stored in the recipient's mailbox to the recipient; a connection notification program or equivalent device that notifies the computer system that a recipient is logged on to a network so that the computer system can send messages stored in the recipient's mailbox, if any; and an apparatus and method for sending and receiving a destination address including Internet addresses using a DTMF generator such as a standard telephone keypad.

B. The Brossman Reference

U.S. Patent No. 6,498,661, issued December 23, 2002 to Brossman et al. disclose a method and apparatus for transmitting data to a facsimile presentation device is disclosed. In one embodiment of the invention, the method comprises the steps of receiving a presentation job comprising input data associable with at least one input grayscale value, retrieving at least one of a plurality of threshold matrices, each threshold matrix selected to control a grayscale rendering characteristic of the facsimile presentation device associated with the threshold matrix, applying the grayscale values to the retrieved threshold matrix to rasterize the input data, and transmitting the rasterized input data to the facsimile presentation device. This invention can be practiced in several embodiments, and permits the user to select the threshold matrix according to the presentation device and/or a selected presentation quality. In another embodiment of the invention, the apparatus comprises a means for receiving a presentation job having input data associable with at least one input grayscale value, means for retrieving at least one of a plurality of threshold matrices, each threshold matrix selected to control a grayscale rendering characteristic of the facsimile presentation device associated with the threshold matrix, means for applying the grayscale values to the retrieved threshold matrix to rasterize the input data, and means for transmitting the rasterized input data to the facsimile presentation device.

C. The Bobo Reference

U.S. Patent No. 5,675,507, issued October 7, 1997 to Bobo discloses a message storage and delivery system. The Message Storage and Deliver System (MSDS) is connected to a plurality of DID phone lines and receives facsimile messages, voice messages, and data messages. The MSDS assigns a separate telephone number for each user of the system and can simultaneously receive more than one message for a single user. The messages are stored in memory and are also converted into appropriate hyper-text mark-up language (HTML) files. The MSDS is connected to the Internet and notifies the users with an E-mail message each time a message is received. The MSDS can also page the user so that the user receives almost instantaneous notice of the message. The users can then connect to the MSDS through the Internet and have the messages downloaded to their computers or the users can simply preview the messages stored in the MSDS. The users of the MSDS therefore have the advantage of being able to receive their messages at any time and at any

location at a reasonable cost. The MSDS offers a number of options on how the messages may be sent to the user, such as several preview options available with facsimile messages. The user can also telephone the MSDS to listen to messages or to alter the service provided by the MSDS.

D. The Choksi Reference

U.S. Patent No. 6,477,243, issued November 5, 2002 to Choksi et al. discloses a method and apparatus for automated facsimile message confirmation. Integration of telecommunication message services and other communication services is achieved by notifying a user of a communication system of successful receipt of a message (e.g., a facsimile message) by sending a confirmation message to the user, e.g., using e-mail, facsimile, voice and/or data communications. The user may be identified by a unique identifier, e.g., a telephone number. The confirmation message may comprise a facsimile message, an attachment which includes the received message or a computer network address of a location where information regarding the received message and/or the message itself may be accessed. For the latter case, the computer network address is preferably a universal resource locator (URL) associated with a web page at which the information and/or received message may be accessed. The information may allow the user to view the message (e.g., as marked up by the intended recipient thereof), and/or it may indicate whether the intended recipient has read, reviewed, down-loaded to a hard copy or other device or otherwise accessed the message.

E. The Lee Reference

U.S. Patent No. 5,007,054, issued April 9, 1991 to Lee et al. discloses a network and protocol for real-time control of machine operations. The communication network is comprised of a first, second, third and fourth controller node in line communication. Each controller node includes a microprocessor. Each microprocessor is programmable to respond to and generate data message bytes, each data byte having one start bit, eight data bits, one programmably settable bit and one stop bit. Each microprocessor is further programmable to respond only to a unique address-command data message byte from a message source node. The address-command byte is recognized because the settable bit is set. Each microprocessor is programmed to generate a reply message byte with the ninth bit not set and to then receive from the source node a message count byte followed

uninterrupted by the data message bytes. Upon receiving a complete data message conforming to the received count of the count byte, the microprocessor then generates an acknowledgement byte.

III. Office Action Prior Art Rejections

On page (2), the Office Action rejected claims 1, 4, 5, 8, 11, 14, 15, 18, 21, 24, and 27 under 35 U.S.C. § 102(e) as being anticipated by Chang et al., U.S. Patent No. 5,974,449 (Chang). The Applicants respectfully traverse these rejections.

With Respect to Claims 1, 11, and 21: Claim 1 recites:

A method of managing the distribution of facsimile messages to a recipient, comprising:
receiving a message from a transmitting facsimile via a telephone network, the message comprising
receiving fax server telephone number appended with a recipient direct dial telephone number;
automatically parsing the message to extract the recipient direct dial telephone number from the
message;
receiving a fax payload from the transmitting facsimile in the fax server;
determining an e-mail address and at least one recipient fax preference from the direct dial telephone
number;
processing the fax payload according to the recipient fax preference; and
directing the processed fax message according to the recipient fax preference.

According to the Office Action, all of the foregoing features are disclosed in the following portion of the Chang reference:

As presently contemplated, the present invention supports the following types of fax messaging from subscribers to non-subscribers: 1) fax message to fax message; 2) fax message within an email message to fax message; 3) fax to email message; 4) fax to web page. The present invention also supports fax messaging from non-subscribers sending to subscribers.

A subscriber sending a fax using a fax machine to a non-subscriber has the option of having the fax message received as a fax, as an email, or as a web page, while subscribers wishing to forego using a fax machine can compose an email and still have the email message received by an intended recipient as a fax, as an email or as a web page.

Fax to Fax (Subscribers to Non-Subscribers)

FIG. 3 is a schematic block diagram showing the operation of a fax to fax messaging mode in a presently preferred embodiment of the present invention.

FIG. 4 is a schematic block diagram illustrating the use of messaging servers during the operation of a fax to fax messaging mode in a presently preferred embodiment of the present invention.

Referring now to FIGS. 3 and 4, a subscriber seeking to have the fax message received by an intended recipient as a fax would perform the following steps.

At step 300, a subscriber 400 calls a local server 402 and when prompted by local server 402 chooses the option of having the incoming message 404 received as a message having a fax message delivery format 406 within an area 408 supported by local server 402 or within an area 410 supported by a remote server 412. Local server 402 prompts subscriber 400 for an subscriber ID 414, password 416, and delivery information 418 such as the telephone number of an intended recipient's fax device. A program 420 included with local server 402 determines subscriber ID 414, password 416, and delivery information 418 such as a telephone number as transmitted by the subscriber through a DTMF generator such as a standard telephone keypad 422. Upon receiving the required information, local server 402 generates a start signal such as a CNG tone, signaling subscriber 400 to initiate the transmission of the fax message, e.g., by pressing a START button on the fax machine.

At step 302, upon completion of the fax transmission local server 402 processes the incoming message 404 by using a routing program 417 and routing table 421 to determine whether the destination telephone number 418 is within a local area 408 supported by local server 402, or within a non-local area 410 supported by remote server 412.

If the destination phone number is local telephone number, step 304 is performed. At step 304 the local server simply routes the fax message to the intended recipient's fax device 423 through a telephone network 424 linked to local server 402 via telephone network interface 426 using destination phone number 418. Otherwise, if the destination phone number corresponds to an area served by remote server 412, step 306 is performed.

At step 306, local server 402 using an encapsulation program 428 converts the fax message and delivery information into data packets 430 and routes the packets to remote server 412 via a network such as the Internet 432.

At step 308, remote server 412 converts the data packets to a message 434 having a delivery format of a fax message and delivery information 436 using a de-encapsulation program 438.

At step 310, remote server 412 uses a presentation program 439 to transmit message 434 having a delivery format 436 of a fax message to the intended recipient's fax device 440 through a telephone network 442 linked to the telephone interface 444 provided within remote server 412.

The term data packet or packet is used to define a unit of data sent across the Internet or suitable network. The packets as presently contemplated includes a message data portion and a header portion, where the header portion includes origination, destination, message type information.

Since fax messages are sent via the Internet 432 through local server 402 and remote server 412, long distance toll charges are avoided or significantly reduced if the fax messages were otherwise sent through long distance phone lines. Any toll charges incurred by local server 402 or remote server 412 are tracked and charged to the subscriber's account using accounting program 446 and 448, respectively. The sending and receiving of the fax document are both done from a standard fax machine, the same way a fax is normally sent without the need to have an Internet account. The dialing of the local server telephone number and user ID can be simplified by programming into speed dialing or using an automatic dialer.

Fax Sent via Email

FIG. 5 is a schematic block diagram showing the operation of a fax sent via email messaging mode in a presently preferred embodiment of the present invention.

FIG. 6 is a schematic block diagram illustrating the use of messaging servers during the operation of a fax sent

via email messaging mode in a presently preferred embodiment of the present invention.

Referring now to FIGS. 5 and 6, a subscriber also has the option of having an email message received by an intended recipient, who is a non-subscriber, in a fax format. It is contemplated that the subscriber has an email account which is used to send the message as an email message or as an attachment to an email message.

At step 500, a subscriber 600 sends an incoming message 602 having an email format 604 to local server 606 using an email addressing convention 608 as discussed above, e.g., "faxmail@sf.sub.--cp.com", where the "faxmail" portion 610 provides delivery information by signifying that the email should be transmitted to an intended recipient as a message having a fax format. The "sf.sub.--cp" portion 614 indicates the server location that is intended to receive the incoming message 602, which would be in this example a server located in San Francisco. Incoming message 602 includes the destination address, i.e., a telephone number 616, of an intended recipient's fax device, a password 618 of the subscriber, and the sender's email address 620. Upon receipt of the incoming message 602, a validating program 622 included within local server 606 processes the message by validating the subscriber's identity by checking the included password 618 against the sender's email address 620.

At step 502, a routing program 624 determines whether destination phone number 616 is within a local area 626 supported by local server 606; or within a non-local area 628 supported by a remote server 630 by using a routing table 631.

If destination phone number 616 is a telephone number served by local area 626, step 504 is performed. At step 504, local server 606 has an email processing program 632 that extracts the message contents of the email or email attachment and converts the message contents into a delivery format that includes a fax format 634 which is suitable for reception by a standard fax device such as a fax machine or fax modem. A presentation program 636 delivers the message 638 having the fax format 634 to a fax device 640 corresponding to the destination phone number 616 through local telephone network 642 via a telephone network interface 644.

Otherwise, if routing program 624 determines that destination phone number 616 falls within non-local area 628, step 506 is performed.

At step 506, local server 606 using an encapsulation program 640 converts the email into data packets 646 and routes the packets 646 to remote server 630 via a network such as the Internet 649.

At step 508, remote server 630 converts the data packets 646 to a message 648 having a delivery format of a fax message 651 and delivery information 650 using a de-encapsulation program 652.

At step 510, remote server 630 uses a presentation program 654 to transmit the message 648 having delivery format of a fax message 651 to an intended recipient 656 by using destination phone number 616, which is obtained from delivery information 650, to reach the recipient's fax device 658 through telephone network 660 via telephone network interface 662.

In this preferred embodiment of the present invention, the server network provides the subscribers the convenience of using their familiar email client programs and PC applications for sending fax to non-subscribers who do not have an email account, while avoiding or reducing long distance toll charges. (col. 9, line 20 through col. 11, line 44 (emphasis added))

Claim 1 recites that the fax is processed and directed according to the *recipient's* fax preferences. As highlighted in the bolded items above, Chang discloses a system that does the opposite ... it processes and directs the fax message according to the transmitter's preferences.

Claim 1 also recites the step of receiving a message comprising a receiving fax server telephone number appended with a recipient direct dial telephone number, and that the direct dial number is used to determine an e-mail address and the *recipient's* fax preferences. Chang discloses entry of the recipient's fax number, not the recipient's direct dial number, and the fax number is used to send the fax, not to determine fax preferences.

Of course, since Chang does not disclose a message with an appended recipient direct dial telephone number, it likewise does not disclose automatically parsing a recipient direct dial telephone number from the message.

Accordingly, the Applicants do not agree that Chang discloses the features recited in claim 1, and traverse the rejection of this claim.

Claims 11 and 21 recite features analogous to those of claim 1 and is patentable on the same basis.

With Respect to Claims 4, 5, 8, 14, 15, and 18: Claims 4, 5, 8, 14, 15, and 18 recite the features of the claims dependent thereon, and are patentable on the same basis. Claims 4, 5, 8, 14, 15, and 18 also recite features rendering them even more remote from the cited references. Claim 5, for example, recites that the e-mail address of the recipient is determined by calling an API in the fax server to an application managing the recipient information, and searching the recipient information for the e-mail address corresponding to the direct dial telephone number. The Applicants cannot ascertain where this feature is disclosed in the above quoted passage of the Chang reference. Perhaps a more specific reference to a cited passage and some explanation of the relevance would be helpful. Likewise, claim 8 recites fax forwarding information. Since Chang teaches that the preferences are selected by the transmitter of the fax and not the recipient, it is hard to understand how this feature could be disclosed in the cited passage.

On page (7), the Office Action rejected claims 30-32 under 35 U.S.C. §103 as unpatentable over Chang in view of Lee et al., U.S. Patent No. 5,007,054 (Lee). Applicants respectfully traverse these rejections.

Claims 30 and 31 recite detecting whether the fax payload is essentially identical to an earlier received payload and terminating the reception of the fax payload if the fax payload is essentially identical to an earlier received fax payload. According to the Office Action, this is disclosed by the Lee reference at col. 8, lines 59-64. However, as described below, that portion of the Lee reference

refers to the detection of message sequencing (identical messages transmitted more than once upon detecting an error condition).

If a negative acknowledgement (ACK/NAK) is transmitted by the destination node, the message is retransmitted by the source node. Message sequencing is used to detect a duplicated message, i.e., an identical message is transmitted more than once upon detecting an error condition. When a duplication is detected, the duplicated message is discarded. (col. 8, lines 59-64)

The Lee reference is directed to eliminating messages that are duplicated because of an acknowledgement protocol ... redundant messages that are transmitted to assure that the message was delivered. There is no teaching or motivation to modify Chang to perform an analogous acknowledgement protocol (multiple retransmissions due to delayed acknowledgement), and hence, no reason to detect and terminate reception of essentially identical payloads. The proffered motivation "enhancing the design and adding more options for subscribers" doesn't make sense in the context of the Chang reference, as the "subscribers" are the entities that are *transmitting* the fax, and the subscribers would not perform the operations described in claims 30 and 31.

Finally, at best, Lee teaches *discarding* duplicated messages, not *terminating the reception* of such messages, as recited in claim 31

IV. Dependent Claims

Dependent claims 2-10, 12-20, and 22-32 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, the Applicants respectfully request that these claims be allowed as well.

V. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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